

**SQS-56 SONAR DOME PRESSURIZATION TRAINER, DEVICE 14E33****TRAINING CATEGORY:**

ANTI-SUBMARINE WARFARE (Sonar)

ORIGINATING AGENCY:

CNET

SECURITY CLASSIFICATION:

Device 14E33 is unclassified.

PURPOSE:

To provide a realistic representation of the operation of the AN/SQS-56 Sonar Dome Pressurization System.

INTENDED USE:

It is intended as a basic familiarization lecture/study device for training maintenance and operating personnel responsible for the functioning of the AN/SQS-56 Sonar Dome air and water pressure system.

FUNCTIONAL DESCRIPTION:

Device 14E33 is an animated, backlighted training panel demonstrating the piping arrangement, special relation of controls and the functioning of the AN/SQS-56 Sonar Dome System.

The panel face depicts a schematic illustration of the pressurization system. The translucent lines are backlighted in segments to represent activated lines of the system as selected by the instructor. Work areas are identified by nomenclature while components such as panel faces, valves, and dials are silkscreened in black on gray component silhouettes. Twenty-eight (28) operating valves indicate the open or closed position of the line by a red indexing bar. The handles operate rotary switches mounted at the rear of the panel to illuminate backlighted segments creating the illusion of opening or closing a valve in the pressurized system. The backlighting system is supported by a 2" x 2" x 2" egg crate structure of aluminum bonded with epoxy cement to the rear of the face panel. The display panel is mounted on an aluminum frame with the rear closed by three (3) 1/8"

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thick aluminum doors mounted on slip joint hinges. Two (2) inverted T-legs fabricated from 2" x 5" rectangular tube are provided with 5" diameter locking, swivel casters to support the structure. The 34" width at the base of the legs provides ample stability.

The main power-on switch is located at the left end of the panel. When the power switch is turned on, the first segment of each of the following systems will illuminate: FIRE MAIN, FRESH WATER, LP AIR MAIN. All other segments are activated as required from the front of the panel by use of operating valves. Each circuit is individually fused. The entire system is protected by a main circuit breaker.

The panel is backlighted by both clear and green 1829 lamps with the clear representing air and the green, water. The effect of filling the dome is achieved by progressively illuminating horizontal segments in 1/2" increments.

Original equipment audio signal and control knobs are utilized for realism in the alarm panel. Seven (7) alternate action switches when depressed will illuminate and energize relief lines or alarm systems.

PHYSICAL INFORMATION:

Unit: One (1) backlighted display panel mounted on casted legs.

Size: Length: 79"
Height: 71"
Width: 34"
Display Panel Cabinet:
60" x 72" x 12"

Weight: Approximately 335 lbs.

POWER REQUIREMENTS:

15 AMP three-pronged receptacle. A transformer/rectifier will provide 24 VDC from 115 VAC supplied through the 15 AMP wall receptacle.

PUBLICATIONS FURNISHED:

NAVTRADEV P-4658, Operation and Maintenance Guide, Device 14E33 (U).

PERSONNEL:

Instructor: One (1) trained in Sonar Dome pressurization systems for the FFG Series Frigate.

Operator: Instructor or student

Trainees: Class of 30

Maintenance: Routine replacement of lamps which fail.

CONTRACT IDENTIFICATION:

Manufactured by Ben Lorenz Associates, Inc., Bedford Hills, NY 10507 under NAVTRASYS-CEN Contract No. N61339-79-C-0095.

LOCAL STOCK NUMBER:

6910-LL-C00-5311